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**STATE UNIVERSITY**  
OF NOVI PAZAR

# **TEMPUS PROJECT**

## **HU**man-**TO**ol interaction **N**etwork

### WP3

**Development of the Laboratory facilities  
that support the new curriculum**

**Person responsible:** Lana Popović-Maneski, Assist.Prof.



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## Goals

1. Development of the laboratories at three university partner sites

- Measurement equipment
- Mechatronic systems for educational purposes

2. Instrumentation for improved rehabilitation at three clinical partner sites

- Training of the medical staff
- On site education of the students following the new curriculum





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## Guidelines:

Intensive task oriented exercise speeds up the recovery of patients after CNS injuries!

### **Methods of exercise:**

- Constraint induced movement therapy (CIMT)
- Robot assisted exercise
- Electrical stimulation
- Neurofeedback

### **Additional requirements:**

- Movement assessment
- Data acquisition
- Lab measurement devices

### **Devices:**

- Reyojce
- WalkAssist
- Stimulator Cefar
- Smarting

### **Devices:**

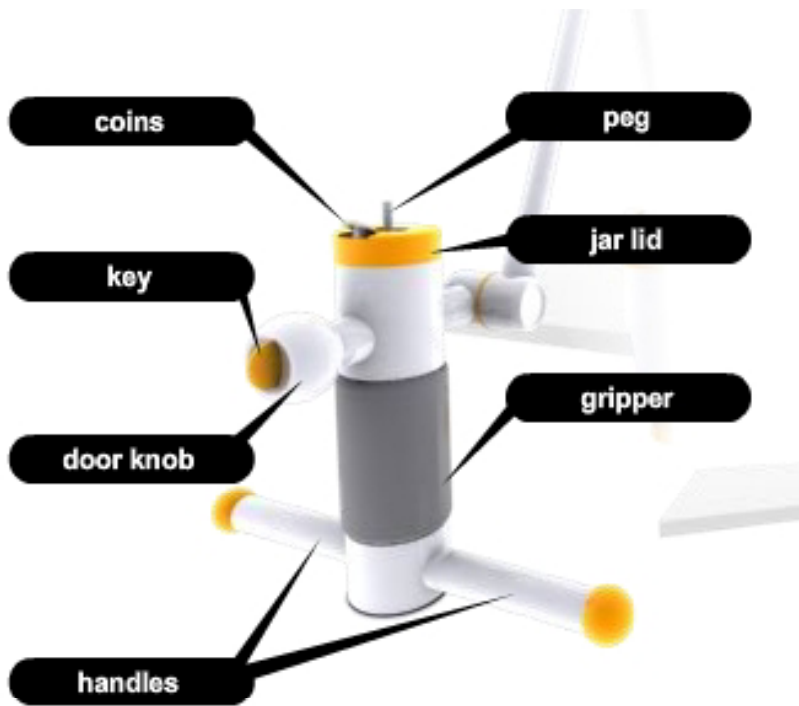
- Walky
- NI
- various



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## Reyojce





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# Reyojce





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## WalkAssist





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## WalkAround, Tecnalia Spain



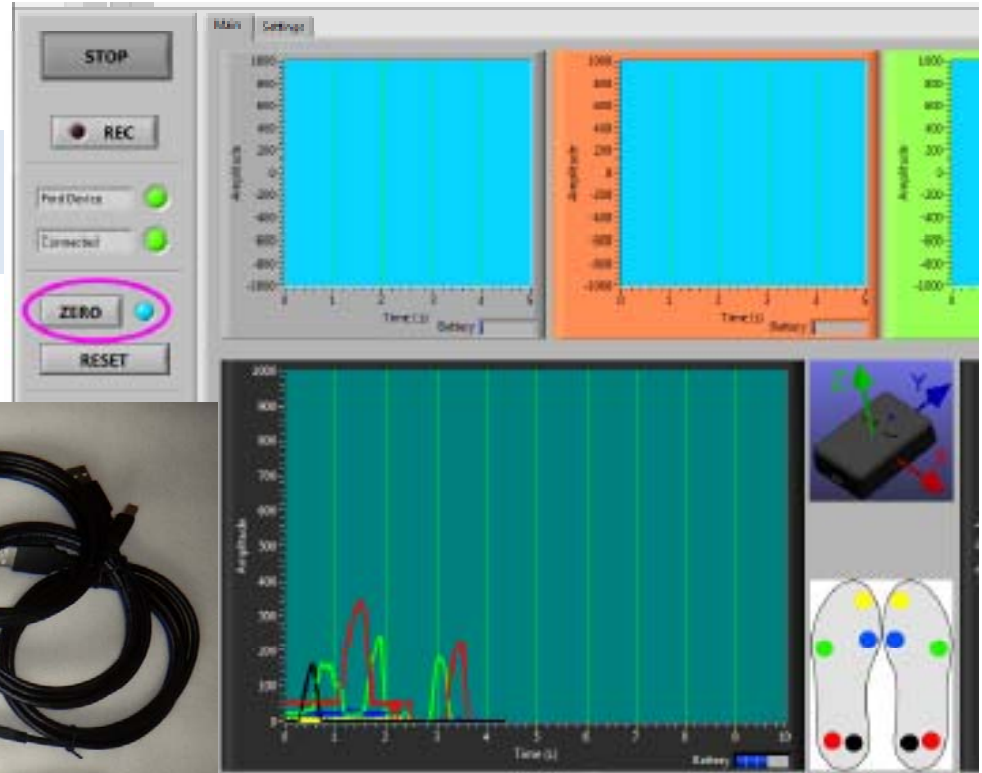




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## Walky





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## Smarting



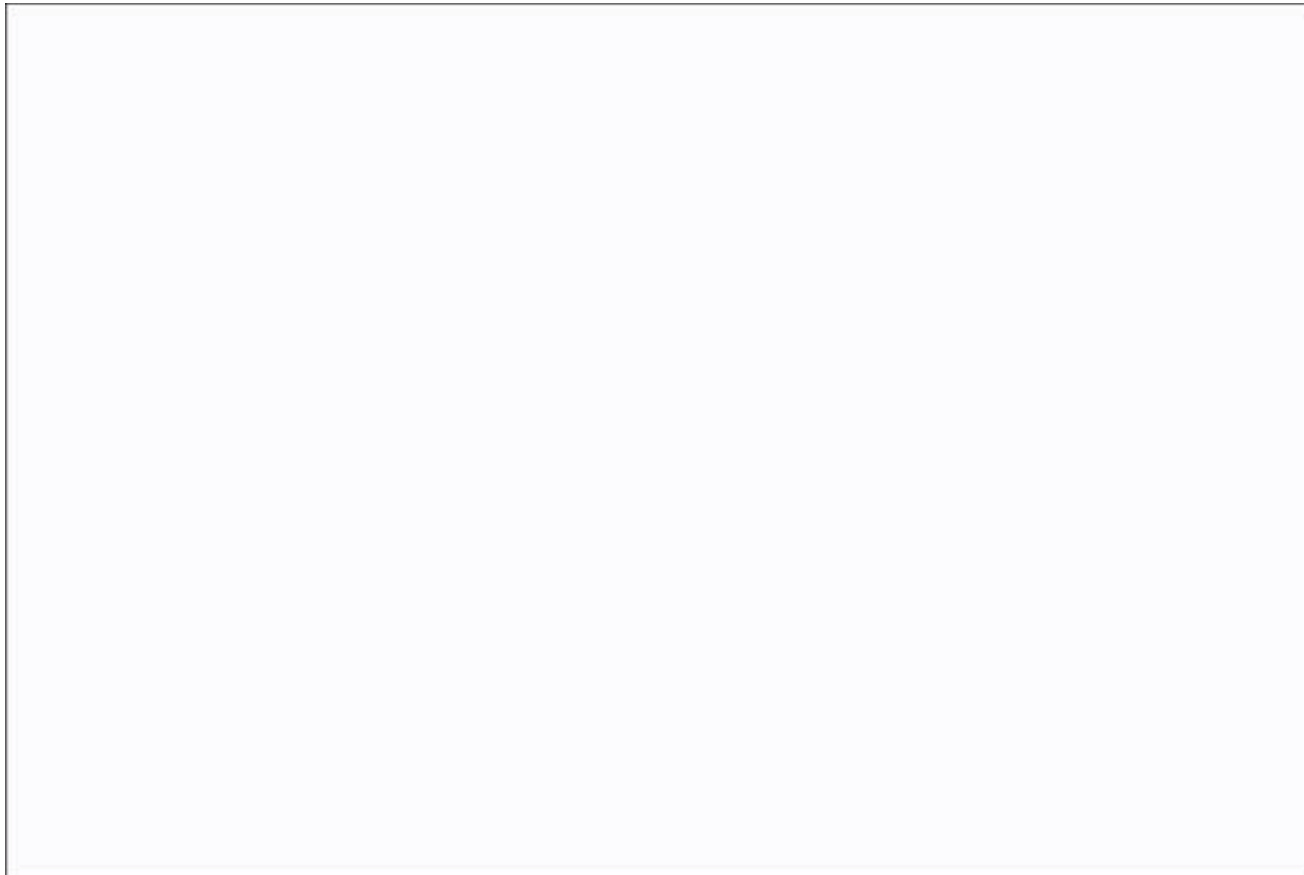


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# Smarting





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# Cefar Compex Mi-Theta 600



electronic stimulator



mi sensor



application



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# Actigrip, Neurodan





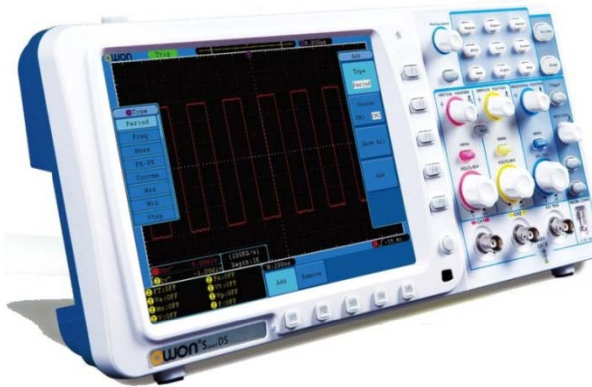
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## General lab equipment



**A/D converter**



**Oscilloscopes**



**Power source**



**Function generator**

## Current activities

3

Training of the laboratory staff

Deadline changed due to equipment delivery delay

New deadline: November 30th

Current status: partial training done

| CLINICAL PARTNERS                         |             |
|-------------------------------------------|-------------|
| Reyojce, WalkAssist, Walky, Smarting      | CR<br>BEG   |
| WalkAssist, Walky, Smarting               | CYHCI<br>NS |
| Reyojce, WalkAssist, Smarting, Stimulator | SH NP       |
|                                           |             |

| UNIVERSITY PARTNERS                               |      |
|---------------------------------------------------|------|
| None planned                                      | UB   |
| DAQ                                               | UNS  |
| DAQ, General Lab equipment<br>Reyojce, WalkAssist | SUNP |
|                                                   |      |



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# Upcoming training & demonstration meetings

**Belgrade** – November 7th

**Novi Pazar** – October 23/24





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# Thank You

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